

NOV 07 2007

Application No.: 10/522,225

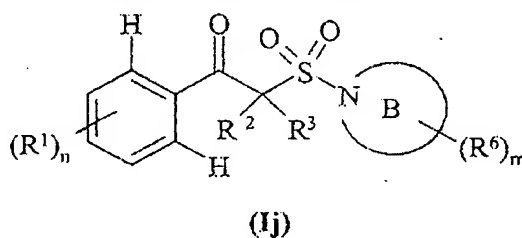
Docket No.: ASZD-P01-804

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-10. (Cancelled)

11. (Previously Presented) A compound of formula (Ij):



wherein:

R^1 is selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, C_{1-6} alkanoyl, C_{1-6} alkanoyloxy, N -(C_{1-6} alkyl)amino, N,N -(C_{1-6} alkyl) $_2$ amino, C_{1-6} alkanoylamino, N -(C_{1-6} alkyl)carbamoyl, N,N -(C_{1-6} alkyl) $_2$ carbamoyl, C_{1-6} alkylS(O) $_a$ wherein a is 0 to 2, C_{1-6} alkoxycarbonyl, N -(C_{1-6} alkyl)sulphamoyl, N,N -(C_{1-6} alkyl) $_2$ sulphamoyl, C_{1-6} alkylsulphonylamino, carbocyclyl, heterocyclyl, carbocyclyl C_{0-6} alkylene-Y-, and heterocyclyl C_{0-6} alkylene-Y-; or two R^1 groups on adjacent carbons may form an oxy C_{1-4} alkoxy group or a C_{3-5} alkylene group; wherein R^1 may be optionally substituted on carbon with one or more R^7 groups; and wherein if said heterocyclyl contains an -NH- moiety, that nitrogen may be optionally substituted by an R^8 group;

n is 0-3; wherein the values of R^1 may be the same or different;

R^2 and R^3 are independently selected from hydrogen, hydroxy, amino, cyano, C_{1-4} alkyl, C_{1-4} alkoxy, N -(C_{1-4} alkyl)amino, N,N -(C_{1-4} alkyl) $_2$ amino, C_{1-4} alkylS(O) $_a$ wherein a is 0 to 2, C_{1-4} alkoxycarbonyl, C_{1-4} alkoxycarbonylamino, C_{1-4} alkanoyloxy, carbocyclyl, heterocyclyl, carbocyclyl C_{1-4} alkyl, and heterocyclyl C_{1-4} alkyl; or

R^2 and R^3 together form oxo or a spiro attached heterocyclyl; wherein R^2 and R^3 may be independently optionally substituted on carbon with one or more R^9 groups; and wherein if said

Application No.: 10/522,225

Docket No.: ASZD-P01-804

heterocyclyl contains an -NH- moiety, that nitrogen may be optionally substituted with an R¹⁰ group;

Ring B is a heterocyclyl linked to the sulphonyl of the compound of formula (Ij) via a nitrogen atom; wherein if said heterocyclyl contains an -NH- moiety, that nitrogen may be optionally substituted with an R¹⁷ group;

R⁶ is a substituent on carbon and is selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, trifluoromethyl, trifluoromethoxy, C₁₋₄alkyl, C₂₋₄alkenyl, C₂₋₄alkynyl, C₁₋₄alkoxy, C₁₋₄alkanoyl, C₁₋₄alkanoyloxy, *N*-(C₁₋₄alkyl)amino, *N,N*-(C₁₋₄alkyl)₂amino, C₁₋₄alkanoylamino, *N*-(C₁₋₄alkyl)carbamoyl, *N,N*-(C₁₋₄alkyl)₂carbamoyl, C₁₋₄alkylS(O)_a wherein a is 0 to 2, C₁₋₄alkoxycarbonyl, *N*-(C₁₋₄alkyl)sulphamoyl, *N,N*-(C₁₋₄alkyl)₂sulphamoyl, C₁₋₄alkylsulphonylamino, carbocyclyl, heterocyclyl, carbocyclylC₀₋₄alkylene-Y-, and heterocyclylC₀₋₄alkylene-Y-; wherein R⁶ may be optionally substituted on carbon with one or more R¹⁸ groups; and wherein if said heterocyclyl contains an -NH- moiety, that nitrogen may be optionally substituted with an R¹⁹ group;

m is 0-3; wherein the values of R⁶ may be the same or different;

Y is -S(O)_a-, -O-, -NR²⁰-, -C(O)-, -C(O)NR²¹-, -NR²²C(O)-, or -SO₂NR²³-; wherein a is 0 to 2;

R⁷, R⁹, and R¹⁸ are independently selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, trifluoromethyl, trifluoromethoxy, C₁₋₄alkyl, C₂₋₄alkenyl, C₂₋₄alkynyl, C₁₋₄alkoxy, C₁₋₄alkanoyl, C₁₋₄alkanoyloxy, *N*-(C₁₋₄alkyl)amino, *N,N*-(C₁₋₄alkyl)₂amino, C₁₋₄alkanoylamino, *N*-(C₁₋₄alkyl)carbamoyl, *N,N*-(C₁₋₄alkyl)₂carbamoyl, C₁₋₄alkylS(O)_a wherein a is 0 to 2, C₁₋₄alkoxycarbonyl, *N*-(C₁₋₄alkyl)sulphamoyl, *N,N*-(C₁₋₄alkyl)₂sulphamoyl, C₁₋₄alkylsulphonylamino, carbocyclyl, and heterocyclyl; wherein R⁷, R⁹, and R¹⁸ may be independently optionally substituted on carbon with one or more R²⁶ groups;

R⁸, R¹⁰, R¹⁷, and R¹⁹ are independently selected from C₁₋₄alkyl, C₁₋₄alkanoyl, C₁₋₄alkylsulphonyl, C₁₋₄alkoxycarbonyl, carbamoyl, *N*-(C₁₋₄alkyl)carbamoyl, *N,N*-(C₁₋₄alkyl)carbamoyl, benzyl, benzyloxycarbonyl, benzoyl, carbocyclyl, heterocyclyl, and phenylsulphonyl; wherein R⁸, R¹⁰, R¹⁷, and R¹⁹ may be independently optionally substituted on carbon with one or more R²⁷ groups;

Application No.: 10/522,225

Docket No.: ASZD-P01-804

R^{20} , R^{21} , R^{22} , and R^{23} are independently selected from hydrogen, phenyl, C_{1-4} alkylsulphonyl, and C_{1-4} alkyl;

R^{26} and R^{27} are independently selected from selected from halo, nitro, cyano, hydroxy, trifluoromethoxy, trifluoromethyl, amino, carboxy, carbamoyl, mercapto, sulphamoyl, methyl, ethyl, methoxy, ethoxy, acetyl, acetoxymethyl, methylamino, ethylamino, dimethylamino, diethylamino, *N*-methyl-*N*-ethylamino, acetylamino, *N*-methylcarbamoyl, *N*-ethylcarbamoyl, *N,N*-dimethylcarbamoyl, *N,N*-diethylcarbamoyl, *N*-methyl-*N*-ethylcarbamoyl, methylthio, ethylthio, methylsulphanyl, ethylsulphanyl, mesyl, ethylsulphonyl, methoxycarbonyl, ethoxycarbonyl, *N*-methylsulphamoyl, *N*-ethylsulphamoyl, *N,N*-dimethylsulphamoyl, *N,N*-diethylsulphamoyl, and *N*-methyl-*N*-ethylsulphamoyl;

or a pharmaceutically acceptable salt thereof;

with the proviso that said compound is not (phenyl)-[α -(pyrrolidin-1-ylsulphonyl)benzyl]-ketone;

(phenyl)-[α -(morpholinosulphonyl)benzyl]-ketone;

(4-carbamoylphenyl)-[4-(5-chloropyridin-2-yloxy)piperidin-1-ylsulphonylmethyl]-ketone;

(4-carbamoylphenyl)-[4-(4-fluorophenyl)piperidin-1-ylsulphonylmethyl]-ketone;

(4-fluorophenyl)-[4-(5-chloropyridin-2-yloxy)piperidin-1-ylsulphonylmethyl]-ketone;

(phenyl)-[4-(5-chloropyridin-2-yloxy)piperidin-1-ylsulphonylmethyl]-ketone;

(4-chlorophenyl)-(piperazin-1-ylsulphonylmethyl)-ketone;

(4-chlorophenyl)-[4-(*t*-butoxycarbonyl)piperazin-1-ylsulphonylmethyl]-ketone;

(4-hydroxyphenyl)-(morpholinosulphonylmethyl)-ketone; or

(phenyl)-(1,2,3,4-tetrahydroisoquinolin-2-ylsulphonylmethyl)-ketone;

when R^2 and R^3 are hydrogen, *m* is 0, and Ring B is 4-methylpiperazin-1-yl, then $(R^1)_n$ is not hydrogen, 4-fluoro, 4-nitro, 3,4-dimethoxy, 4-methoxy, 4-*t*-butyl, 4-trifluoromethyl, or 4-chloro; and

when R^2 and R^3 are hydrogen, *m* is 0, and Ring B is morpholino, then $(R^1)_n$ is not hydrogen, 4-dimethylamino, 4-nitro, 4-methoxy, 4-*t*-butyl, 4-trifluoromethyl, or 4-fluoro or 4-chloro.

12. (Cancelled)

Application No.: 10/522,225

Docket No.: ASZD-P01-804

13. (Currently Amended) A pharmaceutical composition which comprises a compound of claim 11 ~~any one of claims 9, 11 or 12~~, or a pharmaceutically acceptable salt thereof, in association with a pharmaceutically acceptable diluent or carrier.

14-20. (Cancelled)

21. (New) The compound of claim 11, wherein the compound is (morpholinosulphonylmethyl)-(4-fluorophenyl)-ketone.

22. (New) A method for inhibiting 11β HSD1, comprising administering a compound of claim 11.

23. (New) The method of claim 22, wherein a therapeutically effective amount of the compound is administered to a warm-blooded animal.

23. (New) The method of claim 22, wherein the method is a method of treating a disease.

24. (New) The method of claim 23, wherein the disease is a metabolic syndrome.

25. (New) The method of claim 23, wherein the disease is selected from diabetes, obesity, hyperlipidaemia, hyperglycaemia, hyperinsulinemia, and hypertension.

26. (New) The method of claim 23, wherein the disease is selected from glaucoma, osteoporosis, tuberculosis, dementia, cognitive disorders or depression.

27. (New) A method for inhibiting 11β HSD1, comprising administering the composition of claim 13.

Application No.: 10/522,225

Docket No.: ASZD-P01-804

28. (New) The method of claim 27, wherein a therapeutically effective amount of the composition is administered to a warm-blooded animal.
29. (New) The method of claim 27, wherein the method is a method of treating a disease.
30. (New) The method of claim 29, wherein the disease is a metabolic syndrome.
31. (New) The method of claim 29, wherein the disease is selected from diabetes, obesity, hyperlipidaemia, hyperglycaemia, hyperinsulinemia, and hypertension.
32. (New) The method of claim 29, wherein the disease is selected from glaucoma, osteoporosis, tuberculosis, dementia, cognitive disorders or depression.